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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,777	01/23/2001	Marvin S. White	SPTV-01049US0	2237

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EXAMINER

SANTIAGO, ENRIQUE L

ART UNIT PAPER NUMBER

2671

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,777

Applicant(s)

WHITE ET AL.

Examiner

Enrique L. Santiago

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-38 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-13, 16, 18-21, 23-25, 39, 41, 43-45, 48 and 49 is/are rejected.
- 7) ☒ Claim(s) 3, 14, 15, 17, 22, 26, 40, 42, 46 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-13, 16, 18-21, 23-25, 39, 41, 43-45, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gloudemans et al. US patent no 6,266,100 B1 in view of Hrusecky et al. US patent no 6,542,162.

The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or

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subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

-Regarding claims 1, 20, Gloudemans et al. teaches a method for blending images (see column 4, lines 29-35): receiving a first image, said first image includes a first set of pixels (see column 4, lines 29-35); receiving a second image, said second image includes a second set of pixels (see column 4, lines 29-35) and a third set of pixels, said third set of pixels has a predefined attribute indicating that said third set of pixels should not be mixed (see column 9, lines 7-11); determining which pixels of said second image are part of said second set of pixels and which pixels of said second image are part of said third set of pixels based on said predefined attribute (see fig 29, column 23, lines 3-41).

Gloudemans et al. does not directly teach a method wherein for each specific pixel of said first set of pixels that corresponds in position with a pixel from said second set of pixels, accessing a color map based on color of said specific pixel and determining a pixel blending value for said specific pixel based on said accessing said color map, said color map capable of storing blending value information for a plurality of different colors; and blending said first set of pixels with said second set of pixels based on said pixel blending values.

However in similar art Hrusecky et al. teaches said method (see column 2, lines 31-44, column 7, line 55-column 8, line 27). Therefore it would have been obvious to one skilled in the art at the time of the invention to use said method, because it would enhance a viewer's perception of the overall quality of a digital video system and establish commercial advantage of a digital video system employing the same (see column 1, lines 41-49).

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-Regarding claims 2 and 21, Hrusecky et al. further teaches a method wherein: said predefined attribute is a transparent color (see column 8, lines 16-24).

-Regarding claims 4 and 23, Hrusecky et al. further teaches a method of adding additional visibly distinct colors to said color map (see fig. 9, column 12, lines 5-20).

-Regarding claim 5, Gloudemans et al. further teaches a method wherein: said second image is part of a video signal (see column 4, lines 29-35); said step of receiving a second image includes receiving said video signal (see column 6, lines 38-48).

-Regarding claim 6 and 24, Gloudemans et al. further teaches method wherein: said predefined attribute is a predefined color (see column 9, lines 7-11); and said step of determining which pixels of said video signal are part of said second image comprises the step of identifying which pixels of said video signal are said predefined color (see column 14, lines 23-39).

-Regarding claim 7, Hrusecky et al. further teaches a method wherein: said predefined attribute is a transparent color (see column 8, lines 16-24); and said step of determining which pixels of said video signal are part of said second image comprises the step of identifying which pixels of said video signal are said transparent color (see column 8, lines 16-28).

-Regarding claim 8, Gloudemans et al. further teaches a method wherein: said first image is part of a first video signal (see column 4, lines 29-35); said step of receiving a first image includes receiving said first video signal (see column 4, lines 29-35); said second image is part of a second video signal (see column 4, lines 29-35); said step of receiving a second image includes receiving said second video signal (see column 4, lines 29-35).

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-Regarding claim 9, Hrusecky et al. further teaches a method wherein: said color map is a look-up table storing color values and blending information for said color values (see column 8, lines 16-28).

-Regarding claim 10, Hrusecky et al. further teaches a method wherein: said color map is a look-up table storing ranges of color values and blending information for said ranges (see column 8, lines 16-28).

-Regarding claim 11, Hrusecky et al. further teaches a system wherein receiving a first image, receiving a second image, accessing and blending are performed by one apparatus (see column 7, line 55-column 8, line 28).

-Regarding claim 12, Gloudemans et al. teaches a method further including: receiving additional blending values that are not based on said color map (see column 7, lines 54-60, column 9, lines 7-19), said step of blending is also based on said additional blending values (see column 7, lines 54-60, column 9, lines 7-19).

-Regarding claim 13, Gloudemans et al. further teaches a method wherein: said additional blending values indicate whether to ignore said pixel blending values (column 9, lines 7-19).

-Regarding claim 16, Gloudemans et al. teaches a method performed in real time during a live event (see column 2, lines 50-51).

-Regarding claim 18, Hrusecky et al. further teaches a method wherein determining a pixel blending value includes reading said pixel blending value from said color map (see fig. 8, column 11, lines 5-21).

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-Regarding claim 19, Hrusecky et al. further teaches a method wherein determining a pixel blending value includes reading color data from said color map and calculating said pixel blending value from said color data (see fig. 8, column 11, lines 5-21).

-Regarding claim 25, Gloudemans et al. further teaches receiving additional blending values that are not based on said color map (see column 7, lines 54-60, column 9, lines 7-19), said step of blending is also based on said additional blending values (see column 7, lines 54-60, column 9, lines 7-19), said additional blending values indicate whether to ignore said pixel blending values (column 9, lines 7-19).

-Regarding claim 39, Gloudemans et al. teaches an apparatus for blending a first video image with a second video image (see column 4, lines 29-35), a pixel blending value calculation circuit receiving said first video image (see column 7, lines 54-65); and a blending circuit receiving said first video image and said second video image (see column 7, lines 26-65), said pixel blending circuit in communication with said pixel blending value calculation circuit (see column 7, lines 26-65), said blending circuit mixes said first video image with said second video image based on said output of said pixel blending value calculation circuit(see column 7, lines 26-65).

Gloudemans et al. does not directly teaches and apparatus wherein said pixel blending value calculation circuit includes a color map, said color map stores information indicating blending values for multiple visibly distinct colors, said pixel blending value calculation circuit generates an output based on color in said first video image and said color map.

However in similar art Hrusecky et al. teaches said apparatus (see column 2, lines 31-44, column 7, line 55-column 8, line 27). Therefore it would have been obvious to one skilled in the

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art at the time of the invention to use said method, because it would enhance a viewer's perception of the overall quality of a digital video system and establish commercial advantage of a digital video system employing the same (see column 1, lines 41-49).

-Regarding claim 41, Hrusecky et al. further teaches a memory (see figs. 7-9), said memory stores said color map (see figs. 7-9, column 1, line 52-column 2, line 44); and a processor in communication with said memory (see figs. 7-9, column 1, line 52-column 2, line 44), said processor receives said first video image (see figs. 7-9, column 1, line 52-column 2, line 44), accesses said color map based on colors in said first video image and determines said output (see figs. 7-9, column 1, line 52-column 2, line 44).

-Regarding claims 43 and 48, Hrusecky et al. further teaches an apparatus wherein said pixel blending value calculation circuit selectively ignores said color map for a particular pixel in said first video image if said particular pixel is of a predetermined color (see column 2, lines 31-44, column 12, lines 32-61, column 13, lines 3-6).

-Regarding claims 44 and 49, Hrusecky et al. further teaches an apparatus wherein said pixel blending value calculation circuit accesses said color map for every pixel of said first video image and generates an output based on said color map for every pixel of said first video image (see column 12, lines 32-61, column 13, lines 3-6).

-Claim 45 combines the limitations of claims 39 and 41 and is rejected for the same reasons.

Allowable Subject Matter

Claims 27-38 are allowed.

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Claims 3, 14, 15, 17, 22, 26, 40, 42, 46 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US patent no. 6,137,919

US patent no. 6,014,147

US patent no. 6,236,410

US patent no. 6,094,511

US patent no. 5,260,695

US patent no. 5,761,326

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enrique L. Santiago whose telephone number is (703) 306-5908. The examiner can normally be reached on Monday to Friday from 7:00 A.M. to 3:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Technology Center 2600 Customer Service Office whose
telephone number is (703) 306-0377.

Enrique L. Santiago

February 22, 2004



MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600